Examining the Collaborative Reading Experiences of English Language Learners for Online Second Language Socialization

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ABSTRACT

This study examines the impact of using a digital annotation tool (DAT) on second language (L2) socialization of English as a foreign language (EFL) learners in a university-level advanced reading course. Theoretically guided by the paradigm of second language socialization (Duff, 2002) and pedagogically informed by bridging activities model (Thorne & Reinhardt, 2008), the study aims to understand the social benefits of L2 learners' collaborative reading practices in a DAT system through a variety of quantitative and qualitative research techniques. The results show that students successfully socialized into a multitude of networks and genres through hybridized communicative practices while displaying both expert and novice performances. The article concludes by calling further research in the incorporation of DAT systems into L2 teaching and learning contexts such as less commonly taught languages and populations including pre-service language teachers.

INTRODUCTION

The advancement of web technologies in recent years paved the way for individuals to engage in a myriad of literacy practices in linguistically and culturally rich socio-interactive spaces. The penetration of such literacies in informal contexts also feature digital social reading practices, which entail "the act of sharing one's thoughts about a text with the help of tools such as social media networks and collaborative annotation" (Blyth 2014, p. 205). Being formed through a transformation from traditional print-based reading to a dynamic online experience, digital annotation tools (DATs) allow individuals to make textual and multimodal annotations, which can be shared with others, thus providing a platform for collaborative reading. Digital social reading was found to present unprecedented pedagogical opportunities for learning and teaching contexts in previous scholarship. A systematic review of empirical research revealed that the use of digital annotation tools (DATs) in higher education provided promising evidence for effective learning outcomes (Novak, Razzouk, & Johnson, 2012). Several studies experimented with DATs in second language teaching and learning (L2TL) settings as well. These attempts uncovered several pedagogical benefits of digital social reading including linguistic, social, and literary gains afforded by the medium (e.g., Thoms & Poole, 2017; Thoms, Sung, & Poole, 2017).

Moving forward, further research is needed for the investigation of the extent such digital reading literacies enable learners to leverage their practices for the purpose of experiencing successful language socialization. In an effort to fill the void in the literature, the present study

examines the social benefits afforded by a collaborative reading platform in a university-level advanced reading course via the adoption of a DAT. This exploratory study is theoretically guided by a second language socialization perspective (Duff, 2007, 2012), which considers L2 development and socialization as inextricable processes. Considering it provides a lens for investigating socio-interactive technologies as tools for socialization of learners into a wide array of literacy practices, genres, and communities (Reinhardt & Zander, 2011), it is used as an interpretive framework since the current study analyzes socio-literacy practices of learners interacting with others through a multitude of discourses and genres in a digital reading platform. The ultimate goal is to assist learners in engaging in critical multiliteracy practices in order to grapple with the complexity of diverse communities in online spaces. The study contributes to digital collaborative reading literature in L2TL settings and, more generally, to the L2 socialization scholarship in digital contexts.

Second Language Socialization in Digital Settings

Language socialization is a complex and multimodal process in which novices are interacting with the 'experts' of a particular community in order to socialize into that community (Schieffelin & Ochs, 1986). Second language (L2) socialization shares most of the principles of first language (L1) socialization "with the added complexity of dealing with children or adults who already possess a repertoire of linguistic, discursive, and cultural traditions and community affiliations when encountering new ones" (Duff, 2007, p. 310). L2 socialization views interactions between novice and expert learners as a critical process, which provides opportunities for learners to employ linguistic and semiotic resources in digitally mediated environments. As a result, as highlighted in recent language socialization research, L2 learners' language development and use is affected by their engagement in social and linguistic environments in online contexts (Reinhardt & Thorne, 2017). In an era dominated by everyday technology practices and emergent literacies, it is imperative that we understand the role of digital socio-interactive tools such as collaborative reading platforms in the facilitation of language socialization experiences of L2 learners in pedagogical domains.

Prior research has shown that online spaces enable learners to socialize in their learning community with and through semiotic resources and literacy practices. For example, analyzing academic socialization of graduate students, Kim (2011) found that online bulletin boards promoted equal participation among L2 speakers of English and assisted them in gaining a legitimate status in their community. These findings are echoed by Yim (2011), who carried out a mixed-methods approach to compare socialization processes of learners in face-to-face and asynchronous modes of teaching. Her research showed that students played more social roles in the online medium and they became equally competent members of group who built knowledge. The process of developing expertise as part of socialization is important since learners not only acquire new language structures but also employ these forms to construct themselves in L2 (Nguyen & Kellogg, 2005).

The facilitative role of semiotic tools afforded by digital environments such as blogs and social networking sites in L2 learners' online socialization has attracted attention in the literature as well. To illustrate, Reinhardt and Zander (2011) observed that Facebook provided a multimodally rich L2 environment that assisted learners in an intensive English program to rework on various aspects of their identities. The asynchronous nature of online spaces requiring individuals to engage in a clear turn-taking was found to have positive effect on learners'

socialization since 'single flow occupation' (i.e., certain students dominating interaction) is typically restricted (Nguyen & Kellogg, 2005). However, it is important to underscore that this might also cause learners to post more individual statements. Kim (2011), for example, observed that students' posts in online discussions did not often integrate their peers' opinions, which revealed that a higher rate of participation does not guarantee a collaborative engagement.

A recurring theme in the research deals with the role of instructor and pedagogical design in successful L2 socialization experiences of students. Recognizing the importance of instructors' approaches and expectations, Yim (2011) found that the instructor's role had an impact on L2 learners' engagement in online discussion boards in two courses taught by different teachers. One of the instructors, who expected students to stay in and around the 'borders' of academic writing in a constant manner, caused learners to develop and experience a constant fear of being corrected. As a result, this group of students engaged in interactions less compared to the other group of students instructed by the teacher who was flexible in terms of length and context of the posts and used relatively more appraisal. Learners in this group were able to exercise a power over their own discourses, which resulted in active participation.

Similarly, in Simpson's (2013) study, the instructor re-contextualized a blog as a mainly pedagogical tool enabling her learners to practice their written English under her control. This not only caused learners to focus mainly on linguistic behavior, but also resulted in the sustainment of aligned identities rather than reconstruction of them. As shown, if learners are encouraged to focus mainly on what Simpson (2013) calls "conventional linguistic behavior" (p. 197), their socialization experiences might be limited to linguistic improvements.

In sum, the aforementioned studies emphasize the significance of the relationship between linguistic development, identity reconstruction, digital tools' features, pedagogical design, and the role of instructors for effective L2 socialization experiences. However, the extent to which L2 learners' engagement when participating in a digital collaborative reading environment impacts L2 socialization processes remains unclear despite several research highlighting the affordances of the medium in L2 learning and teaching contexts as well (e.g., Thoms & Poole, 2017, 2018; Thoms et al., 2017). Furthermore, since the instructional design was found to affect the L2 socialization experience, it is important to employ a pedagogical approach, which emphasizes both linguistic awareness and digital literacy practices including both formal and vernacular literacies. Therefore, the instructional design of this study was mainly informed by Bridging Activities framework, which aims to "enhance engagement and relevance through the incorporation of students' digital-vernacular expertise, experience, and curiosity, coupled with instructor guidance at the level of semiotic form to explore interactional features, discourse-level grammar, and genre" (Thorne & Reinhardt, 2008, p. 567). Applying this model in an online digital social reading context, the pedagogical design of the present study featured a series of activities using digital texts to facilitate the language socialization experience of L2 English learners while developing their perspectives in approaching everyday practices. Overall, given the dearth of research on the exploration of digital social reading practices of learners in connection with their L2 socialization experiences, the present study attempts to address the following research question: How might L2 learners' collaborative reading practices affect their L2 socialization in a digital environment?

METHODOLOGY

Context and Participants

The study site was an undergraduate advanced reading course at the department of English Language Teaching (ELT) at a state university in southeastern Turkey. The course was offered as an elective to students in their second year of coursework and required weekly meetings for two hours. The main goal of the course was to contribute to the development of students' L2 reading skills by exposing them to various genres as well as teaching strategies they can use before, during, and after reading. All of the students, who had upper-intermediate level of English, had taken two semesters of English and they were ready in regards to their linguistic backgrounds.

Twelve undergraduate students, 9 females and 3 males, participated in the study. They were aged between 19-23 years old at the time of the study and all of them were English language teacher candidates. While eleven of the students were born and raised in Turkey, one male participant was an international student from Burundi, the small Central African country. All of the students except the two reported that they had a computer that they can use either at home or dormitory in the survey conducted at the beginning of the semester. While ten students indicated that they could regularly access the internet either via computer, tablet, or smartphone, the frequency of weekly internet use was reported as approximately 15 hours. Participants also indicated that they had previous experiences in terms of using web technologies (e.g., educational social networks such as Edmodo, social networks designed for language learning such as LiveMocha, online dictionaries, ESL blogs and webpages) to improve their English language skills. The instructor of the course was the author.

The Digital Annotation Tool

There are a variety of digital annotation tools, some of which were previously employed in research in L2 teaching and learning context such as eComma (Thoms et al., 2017) and Hylighter (Thoms & Poole, 2017). For the present study, the participants used *SocialBook*, a free digital annotation tool which allows readers to engage in a variety of activities before, during, and after reading (Figure 1). Texts can be annotated through commenting, underlining, and integrating multimedia resources such as uploading images or inserting links. Individuals can carry out synchronous or asynchronous conversations through threaded multi-layered discussions.

Figure 1. The Interface of *SocialBook*

Procedures

The course was designed in two parts. Forming the first six weeks of the course, the first part consisted of the discussion of weekly reading-related topics (e.g., types of genres, reading strategies) in a face-to-face environment. The second eight-week period of the course included discussions of the texts formed through SocialBook in addition to the weekly meetings in class. In *Week 1*, the instructor uploaded a text and annotated it with questions, comments, images, and links (See Appendix A). Students participated in the text mainly through responding to the instructor. The instructor was purposefully active in the threaded discussions during the week, which is considered an important part of a pedagogy of multiliteracies (i.e., overt instruction) (New London Group, 1996). The goal was to ensure that students become familiar with the medium and ready for the upcoming activities.

For *Weeks 2-5,* students were asked to form groups themselves, which resulted in the formation of 3 groups with 3, 4, and 5 members respectively. Each member of the group was responsible for finding a text, uploading it to the SocialBook, annotating it, inviting group members to the conversation, and leading the discussions. The criteria used to select the texts were; the assigned genre, and an appropriate length for the text (see Appendix B). Following the suggestions in the literature (e.g., Kim, 2011), each of the students in a particular group had a minimum requirement of 5 annotations in their respective groups each week. In order for learners to maintain their agency, they were not restricted to a particular type of linguistic contribution or a specific length of text.

For weeks *6-8*, students were given a final assignment*,* in which they followed the same routine, however they were able to decide on the genre of text. Each student annotated a text for the final project and shared the link with their classmates. Students were encouraged to participate in their group members' texts as well as engaging in the text of at least one non-group member. All participants knew that 40% of their mid-term grades consisted of their discussion performance in weeks 2-5. The course syllabus also indicated that the final project consisted of 25% of a student's final grade. At the end of the semester, students were asked to submit a three-page reflection journal, in which they wrote about their experiences regarding the pedagogical implementation of a digital social reading tool.

Data Collection and Analysis

The sources of data in the study included a pre-study survey, the multi-layered comments in the DAT, and students' reflection journals. The pre-study survey was administered in order to present a clear demographic picture of the participants, which also provided further insight during data analysis. The primary source for the quantitative data consisted of both the instructor's and the participants' digital annotations. These comments were taken as indicators of student and instructor participation. The collected data was categorized into two: a) Initial Posts (IP), b) Response Posts (RP). IPs were represented by the first annotations or comments in each text, while RPs consisted of posts that were submitted as response to those IPs in the texts. The goal was to observe the distribution of IPs and RPs across group members and gain a deeper understanding of the nature of participation. A number of statistical analyses (e.g., multimedia-enhanced and text-only posts, and vocabulary-related annotations) and metrics were calculated as part of the quantitative data, including statistical values such as mean and median for posts across the texts.

The qualitative data consisted of reflection journals written by the participants at the end of the semester and the digital annotations on *SocialBook*. For reflection journals, students were encouraged to write about their experiences of using the digital annotation tool for L2 literacy practices and its value as a pedagogical medium. Twelve reflection papers were submitted in total and the average length of each paper was three pages. The data gathering served two purposes: (a) to understand the emerging themes across students' post-semester reflections pertaining to digital social reading, (b) to determine the prominent areas raised by the students in hopes of providing key insight regarding learners' socialization processes and the future implementations of the tool in similar pedagogical contexts. The reflection journals were analyzed by means of thematic analysis (Glesne, 2010). Each message or idea in the reflection journals was interpreted as the unit of analysis. Therefore, each idea conveying information from the content was coded and categorized as a theme by the author. Following the coding of all the data in the same way, analytical comparisons were made for the purpose of identifying patterns with certain themes. As the process continued, emerging categories were brought together as major themes, or they were finely divided to be relocated to become parts of these themes. Following the inductive coding, further analysis was conducted through deductive coding, which is used when the coding sets are informed by the previous research or philosophical framework followed in the study (Cho & Lee, 2014). This type of theory-driven coding was implemented in an effort to illuminate findings pertaining to L2 learners' socialization process. For this purpose, all the comments or ideas corresponding to issues related to L2 socialization in reflection journals and particularly in annotations/conversations on *SocialBook* were noted and analyzed through the lens of second language socialization (Duff, 2007). Overall, it was aimed that the combination of inductive and deductive coding in data analysis would enhance the findings of the study.

RESULTS AND DISCUSSION

The analysis of the students' reflective journals from a socialization perspective revealed how the digital annotation tool provided an alternative space to face-to-face classrooms for second language (L2) socialization.

Many students considered the collaborative nature of the digital tool to be one of the strongest characteristics of the medium. Most of the participants believed that this attribute was particularly helpful because it enabled them to socialize in the communities they constructed. One student stated: *"I can be socialized with my friends and share my comments about the texts we have here"*. It is through such socialization practices that learners were able to address multiple audiences in their networks. Furthermore, this type of networking created opportunities for them to co-construct meaning within the texts:

> *I can share my opinions with my friends, and I can learn about their opinions. In this way, we can incorporate our ideas. In addition, we can obtain information about what we do not know (P9).*

This kind of co-construction of meaning, which is previously documented (Blyth, 2014), is not a result of passive knowledge transfer between community members; rather it is an outcome of participants' communicative practices within their groups. Additionally, learners in this study pointed out that they could improve their viewpoints on various issues thanks to the group members' multiple perspectives. This corresponds with Jenkins' (2006) Collective Intelligence,

which is defined as "ability of virtual communities to leverage the combined expertise of their members." (p. 27). As a result of the collective intelligence formed in the network, participants can effectively seek assistance from experts in the network as shown in the prior research (e.g., Thoms & Poole, 2017).

Partly due to the nature of the study design, this type of expert-novice relationship was clearly present among the learners. One participant reflected:

> *Students try to answer questions that are given by the [discussion] leader. It is very useful because they can connect with each other in a sincere atmosphere. They can learn from each other and they can form a good relationship (P12).*

The reflection journals revealed that students uploading and annotating their texts were viewed as leaders among their peers particularly during the final projects. Considering that L2 socialization is generally mediated between 'experts' (i.e., more proficient members) and 'novices' (i.e., less knowledgeable individuals) (Duff, 2008, 2012), it is argued that the participants had similar type of dynamics and interaction within their networks. The content analysis of learner-initiated annotations provided evidence for participants' annotations carrying pedagogical and interactional functions, thus illustrating how 'novices' take on 'expert' roles while guiding the discussions in their text (Table 1). Their repertoire includes types of annotations such as praising, clarifying contextual information, suggesting content-related resources and developing interpersonal relationship with other participants among others. Annotations illustrating the majority of these categories are present in the course instructor's posts as well (see Appendix A for a sample), which provides evidence for the impact of the instructor on learners becoming experts. Given that both teachers and peers are among the agents of socialization (Duff, 2012), it is not surprising to see instructor having impact on learners socializing into discussion leader roles. This finding is consistent with previous work (e.g., Yim, 2011), in which it was shown that the tenor set by instructors directly affected learners' adoption of either rigid or interpersonal discourse styles in their respective online communities.

Table 1. The repertoire of discussion leader roles and illustrative student annotations

Annotation type	Student	Text Title	Sample student annotation(s)
Praising / Motivating learners	4	Body Language (FP*)	*(1)* Definitely, this picture explains it very well. Thank you [Participant 1], you are expert at finding appropriate picture :)
Providing language or content-related feedback/correction	11	The Haunted House (W4**)	*(2)* I think you have not understood my question :D :D I mentioned about an abstract meaning, not a place.
Suggesting language or content-related resources	2	Misophonia (FP)	*(3)* If you wonder how misophones feel, you can watch this video *[link inserted]*
Expecting learners to make predictions	7	Home Schooling (FP)	*(4)* What do you understand from the title of this text? Can you explain your ideas?
Clarifying contextual information	9	Misery (W5)	*(5)* "PTSD" is the abbreviation of Post Traumatic Stress Disorder.

Providing comprehension questions	3	Obama Arrives in Kenya (W4)	*(6)* Why didn't Obama go to another sub-Saharan country such as Senegal or Tanzania?
Asking conversation questions about learners' experiences	4	How to Dress for Job Interviews (W2)	*(7)* If you were a boss, to whom would you prefer to give the job? A suited man or a casual man? *[images of a suited and a casual man attached]*
Developing interpersonal relationship	8	Misery (W5)	*(8)* Thanks a lot my dear friend :) u r so brave and yess i am so traditional :p
Promoting original contributions	12	Action on Climate Change (W2)	*(9)* What is its effect on traffic? Can you explain it in your own sentences?
Activating background knowledge	1	Holi Festival (FP)	*(10)* Before reading, can you share what you know about Holi festival?
Providing cultural information	11	Sleeping in on Christmas (FP)	*(11)* The Roman Catholic Church is the largest Christian church and has more than 1.25 billion members in the world.
Exemplifying	10	The King of Pop (W3)	*(12)* Can you give an example showing Michael Jackson' humanitarianism?
Providing vocabulary-related explanations / questions	6	The Best Books of 2015 (FP)	*(13)* A trilogy is something that has three parts, so you have three books to read.
Providing a post-reading /reflection question	5	Bahman Ghobadi (W3)	*(14)* After reading this text, do you think of watching Bahman Ghobadi's films?

* Final Project ** Week (4, 5 etc.)

Although participants' repertoires of leading discussion were similar to the annotations provided by the instructor, students engaged in the construction of different expert discourses as well. For instance, they sometimes expected participants to employ the reading strategy of making predictions. Annotations such as sample 4 in Table 1 required learners to anticipate what they were about to read and encouraged them to focus on the text. This type of annotation was particularly common in the Weeks of 4 and 5, when narrative texts provided a suitable setting for discussion leaders to post prediction-related annotations about the plot. Other categories included students stressing the importance of original contributions by explicitly asking their peers to respond in their own words as seen in sample 9, and developing interpersonal relationship with them as in sample 8. While the first one was pointed out most likely because the instructor had warned students about plagiarism following the initial week, the second one arouse naturally as a transfer of students' face-to-face relationship into digital contexts. It might be argued that discussion leaders reconstructed initiated annotation discourses based on needs (e.g., the use of narrative texts, the purpose of preventing potential plagiarism) and responses by their peers (e.g., producing

interpersonal discourse), thus moving forward towards gaining full membership in their expert roles similar to a group of students in previous research (Yim, 2011).

Even though students employed annotations carrying functions similar to those used by the instructor, they developed their own discourses by exercising power on them (Table 2). Despite the structural similarities across the produced discourses, it is seen that learners moved beyond the samples they were provided in Week 1. For instance, there were instances where they directly shared the definition of a word, which was followed by a question arises of the text. Furthermore, unlike instructor's posts, their annotations featured images accompanying some of the posts, which sometimes included either definition or explanation of target word as well. The construction of such multimedia-enhanced discourses display the extent of expert roles certain students adopted in their L2 communities. Overall, it was observed through annotations that the most of the students showed progress towards adopting teacher/expert roles towards the end of the course.

Table 2. Vocabulary-related annotations produced by instructor and students

By Instructor	By Students
• What is a/an............? • What does this mean? • What does the author mean by......? • This expression means............... • Providing an explanation of the phrase in context.	• What is the meaning of ....? Can you give an example? • What does it mean? / What does .... mean? • What does this word refer to? • What could .... mean in this context? • The word .... means that... Explain it in your own sentences. • What do you understand from this word? Explain it. • Sharing the definition/explanation of the word. • Giving the definition of the word and asking a question. • Providing an exploratory image for the word. • Sharing the definition/explanation of the word and an image at the same time.

Students were responsible for finding a text, uploading it to the system, annotating it, and leading the discussions emerging around their annotations and texts for both five-week period and final project assignments. In order to see similarities or differences across learner posts during both activities, the developmental differences of a participant through sample initial posts annotated during five week period and final projects were examined (Table 3). In her first experience during five-week period, the participant seems to follow an exclusively task-oriented approach, as evidenced by her numbered annotations without multimedia and emojis, which feature content-specific questions. In final project experience, however, the participant performs her teacher role by means of a rich discursive style she builds through a variety of annotations featuring the use of images, suggested resources (e.g., link), and emojis. It is also seen that she moves away from a structured discourse by embracing a more interpersonal voice encompassing an informative yet friendly approach to her peers in the group. The qualitative analysis of the annotations revealed that most of the learners experienced a similar process of adapting into 'expert' roles while appropriately socializing into various roles in the related network.

Table 3. Differences across annotations generated by a participant during various periods

Annotation	Five-week period	Final project period
1	3) What did the frog demand from princess?	*[inserted image of Colorsky5k run]* In Turkey, we have a celebration like Holi festival. It is ColorSky5k. Have you ever been to this celebration? One of my friend has been and she said that it was really enjoyable ☺
2	9) What did the frog want after the meal?	Can everybody join the festival and enjoy it?
3	11) Why did the princess let the frog to sleep in her own bed?	You can click in this link in order to see how the participants enjoy the festival. Watch Holi Festival of Colors 2011 on YouTube *[inserted link]* 👆❀

For a few participants, the benefits of the collaborative reading activity included the access and socialization into multiple discourses and genres. One student expressed:

> *We read many texts about a lot of different subjects. They were sometimes about news, magazine pieces, a book summary, and sometimes life of a writer, a movie review, and many other topics (P2).*

Such navigation between formal and vernacular genres enabled learners to perform their Transgenre Navigation literacies, which are defined as "the ability to follow and produce content across multiple genres" (Solmaz, 2017, p. 59). It seems that integrating different genres into L2 learning contexts not only allows students to engage in various digital literacies, but also assists them in gaining genre awareness. Such awareness might be further facilitated by digital social reading environments themselves, in which formal and vernacular forms of student outputs naturally co-exist (Thoms & Poole, 2018).

Navigating through a multitude of discourses provided additional benefits for participants as they were exposed to a wide array of content through enriched annotations and discussions within the texts. Sample exchanges between participants below provides evidence for participants learning about new information and engaging in interactions leading to such experiences. To illustrate, P12 introduced the initial post in the sample exchanges below in a text about C40 Cities Climate Leadership Group and their contributions for action on climate change (Excerpt 1). As a response, P11 explicitly acknowledged learning about the subject and extended the discussion by questioning the presence of such groups in local context. In the other response, P8 displayed her knowledge on the topic, thus creating a situation where she performed the role of 'expert' while discussion leader adopts the 'novice' role by thanking P8 for her contributions. Such discussions across the text provide various opportunities for learners to engage in interactions leading to various learning experiences. Learners had positive views in this regard as represented in Participant 9's reflection journal: "We can read about various things by sharing different texts and we can see many different comments about one text". This sample also shows the multifaceted

nature of roles adopted by participants, which illustrates "practices of a community as dynamic and fluid, with the potential to be reproduced or transformed by their users" (Lee & Bucholtz, 2015, p. 321) as recognized in language socialization research.

Excerpt 1.

P12: What did you know about C40 before reading the text?

P11: I didn't know anything about such a group till reading this text! Now, i wonder whether there are such groups in Turkey.

P12: I guess there isnt.. Because i didnt hear something like that.

P11: yes, me too :) but i wish there were such beneficial groups in Turkey :)

P12: :)) I agree with you.

P8: As far as I remember their last meeting was at Rio de Janeiro in 2012. I read it in a newspaper, c40 is a summit which comes together on important issues of big cities. It has common points with g20 summit which has been held in Antalya recently.

P12: I heard it last day. But i didnt know their target. I thought that it was about political problems.

P8: Not just political problems. It was also about the global economic problems, terrorism, reform of the IMF, refugee crisis.

P12: I learned that it interests with many issue. Thanks;)

P8: it is good, you're welcome honey :)

Being able to navigate content 'about' the world outside the classroom context in safer pedagogical spaces could encourage learners to become legitimate users while interacting 'with' the world in informal contexts. Such benefits are particularly valuable because it is important for learners to be able to critically engage with linguistic and symbolic materials featuring discourses of discrimination and inequity (Warner & Dupuy, 2018). From a socialization perspective, it is also beneficial since L2 socialization involves novices becoming more proficient in target language values, ideologies, and practices in addition to target language forms with the assistance of experts (Duff, 2012).

The content analysis also revealed that multimodal aspect of the medium allowed learners to engage in hybridized communicative practices, which functioned as facilitators in participants' online L2 socialization. Following Thorne, Black, and Sykes (2009), hybridized communicative practices here are interpreted as "the melding of textual and conversational styles in which users combine the conventions of print-based text with the linguistic and paralinguistic features of face-to-face conversation to create a new communicative mode" (p. 804). Most of the students were able to synthesize information and embed content into text through remixing the materials in different formats. To illustrate, nearly 17% of all initiated posts (IPs) featured at least one multimedia (e.g., image, link) (Table 4). The overall rate of such rich content is higher when multimedia-supported response posts (RPs) across the texts are taken into account. Such rich

context, which facilitated and enriched their L2 socialization, provided opportunities for learners to exert agency through re-appropriation of resources they gathered.

Table 4. The statistics of multimedia-enhanced and text-only initiated posts (IPs) generated by the participants

	Five-week period	Final project period	Average
Multimedia-enhanced IPs	28	27	27,5
Text-only IPs	176	151	163,5
Percentage	15,90	17,88	16,89

Hybridized practices of participants were beyond the integration of multimedia sources into texts. Learners socialized into hybrid linguistic and textual practices by means of a rich set of emojis (e.g., 😊, 👍, 🙏, 🌸), abbreviations (e.g., omg, lol, bcz), colloquial language (e.g., u r, yeap, hun) which comprised discourse fillers (e.g., ummm, hmmm) as well. Such hybrid practices blending the conventions of imposing writing forms with a stylized vernacular language display creative experimentation and versatility of learners via new codes in digital communication. Learners socialized into various types of language use and role-taking through these syncretic linguistic practices while manipulating text and media content. Considering that digital social technologies conform to students' social practices (Kessler, 2018), it is not surprising to see that they exhibited ability to take advantage of the technologically expansive tools afforded by the medium similar to learners in previous studies (e.g., Thoms & Poole, 2018).

Overall, learners generally had a positive L2 socialization experience, which might be attributed to the collaborative nature of the medium, hybridized communicative practices, learners navigating through a multitude of formal and vernacular discourses and genres, and engaging in both expert and novice performances.

The analysis shows how learners formed an informal community in which they co-constructed meaning through collaboration, displayed signs of adopting expert and novice identities, socialized through multiple discourses and genres, and engaged in hybridized communicative practices.

CONCLUSION

In conclusion, the findings of this exploratory study highlight how L2 learners in an EFL reading course engaged in digital collaborative reading practices while socializing into a multitude of networks, discourses, and genres. The study contributes to the existing literature on digital social reading through a number of ways. First, it fills a theoretical void by employing a language socialization perspective, through which it illustrates that digital annotation tools (DATs) can serve as spaces where learners socialize through socio-collaborative practices while navigating formal and vernacular genres. Secondly, the pedagogical design of the study mainly follows bridging activities model, which is partially tested in digital collaborative reading contexts and found to be beneficial for instructional design of future work. Finally, the study expands the variety and depth

of the previously investigated populations and contexts. Overall, DATs can be regarded as mediums which enable L2 learners to view their socio-literacy practices within pedagogical L2 learning contexts. Conforming to the pedagogy of multiliteracies (New London Group, 1996), this process assists them in becoming designers of meaning through co-construction, rather than being simply decoders of language.

Limitations and Future Research

There are several limitations to this study. First, the lack of focal student interviews, especially with learners whose participation rates were lower compared to their classmates, might affect the generalization of the findings for other EFL contexts and the overall strength of the arguments presented. Secondly, the data was coded only by the author and there was no other researcher involved in the coding process. Finally, although *SocialBook* offers a majority of valuable features, it did not allow the researcher to draw data directly from the system, which made the data collection and analysis process more challenging.

Despite the growing body of research in the field in recent years, more empirical work on digital social reading is needed. Future research may examine the potential of DATs to understand how it contributes to reading comprehension skills of learners of less commonly taught languages. It would also be useful if future studies investigated in what ways DATS afford the development of other L2 skills and language areas such as grammar and writing while utilizing both quantitative and qualitative research methodology. An additional area for future work might involve the further exploration of in- and pre-service language teachers' DAT use (see Michelson & Dupuy, 2018) and whether or how these experiences impact their intentions and behaviors for future adoption of such tools as part of their own teaching practices.

APPENDICES

Appendix A. Instructor's sample initial posts for the text in Week 1.

1. Have you watched the movie "Interstellar"? Did you like it? You can see the trailer by clicking here. *[insterted link]*
2. What is a "blockbuster" movie?
3. Do you think the author praises Nolan here or criticizes him? What do you understand from this sentence?
4. Who is Stanley Kubrick? Why is he so famous?
5. *[Annotated text: The Dark Knight Rises]* This is one of Nolan's movies. He directed it in 2012. *[inserted movie poster]*
6. What does the author mean by Batman trilogy?
7. Hans Zimmer is a famous composer whose music you often hear in movie soundtracks. Google for the soundtracks he composed and write one of them here. Interstellar, for instance, is one of them. You can listen to some of its music here. *[inserted link]*
8. So, what is the context of the movie? What is wrong with the Earth?
9. Why do you think they may give up on the Earth and try to find a way to leave it?
10. What is a wormhole?
11. If you haven't seen the movie yet, do you think you will watch it after reading this review?

Appendix B. Genres and topics covered in the first five-week period*

Week	Genre	Title / Source	Source / Author	Submitted by
1	Non-fiction	Interstellar review: Christopher Nolan's best film	- The Telegraph	- Instructor
2	Non-fiction	- How to dress for job interviews - Global cities group promotes action on climate change	- The Balance Careers - Urban Gateway	- Participant 4 -Participant 12
3	Non-fiction	- Obama arrives in Kenya, on personal and official journey - Bahman Ghobadi the director - The Life of Michael Jackson	- New York Times - Middle East Magazine - Wikipedia	- Participant 3 - Participant 5 - Participant 10
4	Short story	- The Frog Prince - A Very Old Man with Enormous Wings - The Haunted House	- Brothers Grimm - G. García Márquez - Virginia Woolf	- Participant 1 - Participant 7 - Participant 11
5	Novel (excerpt)	- Romeo and Juliet - Oliver Twist - Misery	- W. Shakespeare - Charles Dickens - Stephen King	- Participant 2 - Participant 6 - Participant 8, 9

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